ABSTRACT OF THE DISCLOSURE

A method of manufacturing an optical fibre by carrying out chemical vapour deposition reaction(s) in a substrate tube. The method includes: (i) supplying doped or undoped glass-forming precursors to the tube; (ii) supplying a stoichiometric excess of oxygen to the tube; (iii) setting up a reaction in the tube between the reactants supplied in steps (i) and (ii) to effect the deposition of glass layer(s) on the interior of the tube; (iv) subjecting the tube thus coated to a collapsing process to form a perform; and (v) drawing the preform into an optical fibre while heating the preform and subsequently cooling the optical fibre. The Reynolds number is $120<Re<285$ during the deposition process. The Reynolds number is calculated on the basis of the reactants supplied to the tube in steps (i) and (ii), under the temperature and pressure conditions in the interior of the tube during step (iii).